

REMARKS

Claims 1-6, 8, 9, and 11-17 are rejected and remain pending in the application. Claims 5 and 11 are amended.

Claims 5 and 11 are objected to because the claims include “is capable of” language which the Examiner interprets as making “the particular steps” optional. Both claim 5 and claim 11 are directed to an apparatus and not to a method. In particular the Examiner objected to the language reciting “...is capable of reconstructing received data and controlling a transmit/receive direction of data through the bus repeater.” Pursuant to the Examiner’s instructions, the Applicant has amended claims 5 and 11 to remove the language the Examiner interpreted as rendering the “particular steps” optional. As such, the Applicant believes this language places the claims in better condition for allowance or appeal and respectfully requests that the Examiner enter the amendment.

Claims 8, 9, 11, 12, 14, 15, and 17 are rejected under 35 USC 103(a) as being unpatentable over Admitted Prior Art (APA), in view of US 5,337,413 (Lui), and US 2003/0177144 (Hover). The Examiner has maintained his previous rejections under 35 USC 103(a) to claims 8, 9, 11, 12, 14, 15, and 17 in identical form. In the remarks, the Examiner indicated that it is the position of the office that Lui’s disclosure of “controlling a direction of data through the bus repeater” and “permitting signals to pass” read upon the claimed “filtering” even though the term “filter” or “filtering” is not explicitly used. The Examiner has cited to Col. 7, lines 20-67 and Col. 4, lines 39-42 as evidence of this assertion. The Examiner’s interpretation of the term “filtering” is improper. As defined in the current specification, “signal filtering may include data validation, synchronization, and data bit extraction,” (see paragraph 19). It would, therefore, be apparent to a person of ordinary skill in the art that the claimed signal filtering is directed to manipulation of the data signal and merely controlling the direction of the data and permitting the data to pass (as is disclosed in Lui) would not read on the claimed filtering.

Additionally, Hover is relied on solely to show the utilization of a high level programming language and does not teach or make obvious the above described feature. Therefore, the rejection of claim 8 under 35 USC 103(a) is improper and should be withdrawn.

Further regarding claim 8, the Examiner has interpreted the bus repeater (4) of Lui as the claimed bus repeater, the control logic of Lui’s FIG. 2 as the claimed signal filtering and

reconstruction control logic, and Lui's monitor logic (5) as the claimed remote terminal. As can be seen in Lui's FIG. 1, bus repeater (4) only includes host interface transceiver (6) and drive interface transceiver (7) but lacks any signal filtering and reconstruction control logic. The control logic of Lui's FIG. 2 corresponds to the control unit (9), which is part of Lui's monitor logic (5) of Lui's FIG. 1 not the bus repeater (4). Notably, claim 8 recites, "a bus repeater having a first transceiver to couple with the main bus and a second transceiver to couple with the extended bus and having signal filtering and reconstruction control logic". Clearly Lui's control unit (9) is not part of Lui's bus repeater (4).

Under the Examiner's interpretation of Lui, the signal control logic is contained within the remote terminal (monitor logic 5) and is not a component of the bus repeater (bus repeater 4). Instead, the control logic is a component of the remote terminal and provides external controls to the bus repeater (see Figure 2). This interpretation is directly contradictory to the Examiner's argument that the bus repeater contains "signal filtering and reconstruction control logic," as is required by the claim. Since the Examiner's interpretation of the reference is incompatible with the claimed feature, the rejection is improper and should be withdrawn.

Claim 8 also recites, "a remote terminal in direct communication with the bus repeater." In Lui, the host processor (1) is in communication with either the bus repeater (4) or the monitor logic (5), but the bus repeater (4) and the monitor logic (5) are not in direct communication with each other. Lui's communication is performed on interface bus (2), not on control lines (11, 12). Lui states, "The host adapter 3 is selectably switchable between two modes of operation. In the "Bypass Mode" the drive interface transceiver 7 is coupled through the host interface transceiver 6 to the host processor 1. In the "Monitor Mode", the monitor logic 5 is coupled to the host processor 1." (Lui; col. 4, lines 47-52). While Lui's control lines (11, 12) drive enable/disable signals from the control unit (9) of monitor logic (5) to control bus drivers (62, 71) of host interface transceiver (6) and drive interface transceiver (7) in Lui's FIG. 2, the control lines (11, 12) are not considered to be communication links by Lui. Lui states, "In the Bypass Mode, both the host interface transceiver 6 and the drive interface transceiver 7 are enabled, and the bus interface unit 8 in the monitor logic 5 is disabled. Hence, environment conditions detected by the environment monitoring unit 10 cannot be communicated to the host processor 1." (Lui; col. 4; lines 60-65). In other words, the monitor logic (5) cannot communicate through the bus repeater (4). Lui also states, "Thus, in the Monitor Mode, the only bus communication is between the

host processor 1 and the bus interface unit 8, over the connecting interface bus 2” (Lui; col. 5; lines 23-26). Lui’s bus repeater (4) does not act as a bus repeater with respect to the monitor logic (5); the bus repeater (4) only acts as a bus repeater with respect to storage devices (13). Therefore, for at least these reasons, Lui fails to teach or suggest, “a remote terminal in direct communication with the bus repeater”, as recited in claim 8.

Claims 1-6, 13, and 16 are rejected under 35 USC 103(a) as being unpatentable over APA in view of Lui and Hover, and further in view of US 6,701,402 (Alexander). Regarding the subject matter of claim 1, the Examiner makes the same erroneous interpretation of Lui as is described above with regards to claim 8. Claim 1 contains the feature of “signal filtering and reconstruction control logic”. Alexander is relied on only to illustrate bus idle detection circuitry in the bus idle repeater, and Hover is relied on only to disclose the utilization of a high level programming language. Since Lui does not disclose or teach the filtering or reconstructing, and Alexander and Hover are relied on for other features, the rejection under 35 USC 103(a) of the claim 1 is improper, and should be withdrawn.

The Applicant believes no additional fees are necessary. However, the Commissioner is authorized to charge Deposit Account No. 08-0385 in the name of Hamilton Sundstrand Corporation for any extensions of time or additional fees and credit any overpayments.

Respectfully Submitted,

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